

Miscellany

Performance of black pepper (*Piper nigrum* L., var. Panniyur-1) trained on different shade trees as live standards

The productivity of black pepper (*Piper nigrum* L.) mainly depends on moisture content of soil and light availability. Mathai & Chandy (1988) reported that low productivity at the lower parts of the canopy in black pepper is due to low light availability to the vines at this region.

In the present investigation the yield of black pepper vines (Panniyur-1) at eighth year of planting (mix cropped with robusta coffee) was recorded in four species of standards. The standards include, *Erythrina lithosperma* Bl. ex Miq, an evergreen fast growing tree which has a uniform small trunk diameter (30-40 cm); *Ficus glomerata* Roxb, a fast growing tree of medium height with medium trunk diameter (40-60 cm) with comparatively smooth surface and with well distributed branches; silver oak (*Grevillea robusta* A. Cunn.), a tall tree with very rough trunk surface with 40-50 cm diameter and small leaves helping in adequate transmission of light and *thanimara* (*Terminalia bellerica* Roxb.), a very huge tree with 95 cm trunk diameter with 3-4 main branches with good light transmission.

The yield of black pepper was maximum in vines trailed on *T. bellerica* (37.5 kg/vine-green berries) which was significantly higher than in other trees. The yield was lowest (9.11 kg/vine-green

berries) in vines trailed on *E. lithosperma* (Table 1). The data indicated that the total surface area available for the vine to cling to the support trees and the distribution of sunlight under them are important factors for yield of black pepper vines on the standards. Vines trailed on *G. indica* yielded 19.16 kg/vine-green berries indicating that it is a suitable standard in high ranges and also for high density planting of black pepper.

Reference

Mathai C K & Chandy K C 1988 Yield response of black pepper varieties to varying growth light regimes. Indian Cocoa Arecanut Spices J. 11 : 85-88.

Table 1. Yield of black pepper vines trained on different shade trees as live standards

Shade tree species	Yield (kg/vine-green)
<i>Erythrina lithosperma</i>	9.11
<i>Ficus glomerata</i>	16.10
<i>Grevillea robusta</i>	19.16
<i>Terminalia bellerica</i>	37.50
C D at 5%	0.36

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